

successively laminated powder layers, thereby to form a 3D product on the product forming stage. This allows the product to be colored as well in the product forming process. As a result, 3D products colored in various colors can be created in a short time and at a low cost.

IN THE CLAIMS:

Please amend claims 2, 3, 12, 22 and 23 as follows.

2. (Amended) An apparatus for forming a three-dimensional product by applying binder to powder material to form bound bodies successively, said bound bodies corresponding to sectional data blocks which are produced by slicing an original object with parallel planes, said apparatus comprising:

a layer forming mechanism for forming a layer of said powder material;

an applying head for applying plural kinds of materials to said layers, said plural kinds of materials including at least one kind of binder; and

a controller for controlling said applying head to apply said plural kinds of materials selectively to a predetermined region on said layer, wherein

→ said controller controls said applying head to apply one material included in said plural kinds of materials after application of another material, with said another material becoming stable faster than said one material after applied to said layer.

3. (Amended) An apparatus for forming a three-dimensional product by applying binder to powder material to form bound bodies successively, said bound bodies

corresponding to sectional data blocks which are produced by slicing an original object with parallel planes, said apparatus comprising:

a layer forming mechanism for forming a layer of said powder material;

an applying head for applying plural kinds of materials to said layers, said plural kinds of materials including at least one kind of binder; and

a controller for controlling said applying head to apply said plural kinds of materials selectively to a predetermined region on said layer, wherein

said controller controls said applying head to apply binder and ink.

12. (Amended) An apparatus for forming a three-dimensional product by applying binder to powder material to form bound bodies successively, said bound bodies corresponding to sectional data blocks which are produced by slicing an original object with parallel planes, said apparatus comprising:

a layer forming mechanism for forming a layer of said powder material;

an applying head for applying plural kinds of materials to said layers, said plural kinds of materials including at least one kind of binder; and

a controller for controlling said applying head to apply said plural kinds of materials selectively to a predetermined region on said layer, wherein

said applying head applies a plurality of binders to said predetermined region, said plurality of binders having different colors from one another,

said predetermined region is include a coloring region and non-coloring region, and

said powder material is bound with said plurality of binders selectively in said coloring region and with one of said plurality of binders in said non-coloring region

said apparatus further comprising:

a plurality of tanks for containing said plurality of binders and supplying said plurality of binders to said applying head; and

detectors for detecting an amount of each of said plurality of binders remaining in each said plurality of tanks, wherein

the controller controls said applying head to apply a binder which has the greatest remaining amount to said non-coloring region.

22. (Amended) An apparatus for forming a three-dimensional product by applying binder to powder material to form bound bodies successively, said bound bodies corresponding to sectional data blocks which are produced by slicing an original object with parallel planes, said apparatus comprising:

a layer forming mechanism for forming a layer of said powder material;

an applying head for applying plural kinds of materials to said layers, said plural kinds of materials including at least one kind of binder; and

a controller for controlling said applying head to apply said plural kinds of materials selectively to a predetermined region on said layer, wherein

said controller controls said applying head so that an amount of said at least one kind of binder applied to said predetermined region is constant per unit area of main surface on said layer of said powder material.

also 23. (Amended) An apparatus for forming a three-dimensional product by applying binder to powder material to form bound bodies successively, said bound bodies corresponding to sectional data blocks which are produced by slicing an original object with parallel planes, said apparatus comprising:

a layer forming mechanism for forming a layer of said powder material;

an applying head for applying plural kinds of materials to said layers, said plural kinds of materials including at least one kind of binder; and

a controller for controlling said applying head to apply said plural kinds of materials selectively to a predetermined region on said layer, wherein

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said layer forming mechanism comprises:

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powder supplier for forming a left-side heap and a right-side heap of said powder material on left and right sides of a space where said three-dimensional product is formed; and

a left-side powder spreading member and a right-side powder spreading member provided on left and right sides of said applying head, respectively,

in case of moving said applying head from left to right, said right-side powder spreading member spreads said left-side heap to right direction to form a layer of said powder material, and

in case of moving said applying head from right to left, said left-side powder spreading member spreads said right-side heap to left direction to form a layer of said powder material.

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